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ABSTRACT

This study determined the effects of health instruction upon the Objective Reference Test (ORT) scores of students in grades one through five of the Troy School District in Troy, Michigan. In September 1971, all elementary teachers in Michigan were instructed to begin teaching substance use and abuse. An Elementary Health Committee was established to design a curriculum guide for health education incorporating most of the Minimal Performance Objectives (MPO) prepared by the Michigan Department of Education. Upon completion of the guide, the Committee needed to prepare teachers to implement the curriculum. A graduate level course (HED 5231) was, therefore, designed and presented to the teachers. The Troy School District was chosen to be a field testing site for the Michigan Department of Education. Elementary students of teachers who had enrolled in HED 5231 became the experimental group. The control group was made up of classes at the same grade and in the same elementary school as the experimental group, but whose teachers had not enrolled in HED 5231. The experimental group received instruction in the MPOs and were then given assessment tests. The same assessment tests, without instruction, were given to the control group. The study showed that health instruction generally improved ORT scores, that differences on the ORT occurred at grade levels and in content areas, and that a graduate level curriculum in health education was valuable to elementary teachers. (RC)

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A COOPERATIVE PROJECT TO EVALUATE HEALTH EDUCATION AT THE ELEMENTARY LEVEL

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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M.S.W.
M.D.

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Chapter I

INTRODUCTION

During the past four years the Michigan Department of Education, along with educators from all levels of public instruction and higher education, have developed minimum performance objectives in health education for students in grades one through nine. Objective Reference Tests (ORT) have been developed for each of the ten content areas and for each of the nine grades.

The ten content areas identified were: consumer health, community health, disease prevention and control, family health, growth and developemnt, emotional and mental health, nutrition, personal health practices, safety and substance use and abuse. (Michigan Department of Education, p.1) These performance objectives became available for testing in the schools in June, 1973.

Mrs. Martha DuShaw, Coordinator of Health Education in the Troy School District, Troy, Michigan, in trying to develop and implement a comprehensive health education program volunteered to assist the Michigan Department of Education in field testing the ORT tests in health education. In order for the reader to understand this research project and the motivations for it, it is important to know something about the community setting.

At the time of this project, the City of Troy, Michigan, had a population of 55,000 with anticipated growth

to 82,000 people by the year 1980. Only 40 percent of its land had been developed. (Chamber of Commerce, p. 14) The Troy School District had a total student population of approximately 9,050. There were eleven elementary schools, four middle schools and two high schools. (League of Women Voters, pp. 9, 17, 21) A little over 36 percent of Troy's citizens were under the age of eighteen, indicating a very young population. (League of Women Voters, p. 14)

With the rapid increase in the school population and having a highly mobile and young population, community leaders felt that both male and female segments of this young population were at risk to certain illnesses caused by stress such as drug addiction, alcoholism and mental health problems.

Components of health include not only physical dimensions but also emotional, social, spiritual and cultural dimensions. Sorochan and Bender identified three determinants which influence these dimensions. These determinants are: 1) heredity, 2) environment and 3) ecological interactions or behaviors. These three factors influence both quantity and quality of health. (Sorochan and Bender, p. 13)

At the 1974 American Public Health Association's annual meeting the School Health Section presented a position paper on health education which reflects the beliefs of the writers. In the paper they said:

> The school is a community in which most individuals spend at least twelve years of their lives, and more if they have the advantages of early childhood programs, college education

> and continuing education for adults. The health of our school-age youth will determine to a great extent the quality of life each will have during the growing and developing years and on throughout the life cycle. Their capacity to function as health educated adults will in turn help each to realize the fullest potential for self, family, and the various communities of which each individual will be a part. (American Public Health Association, p. 1)

Inasmuch as the school is a social structure, it has every opportunity to provide an educational setting in which the total health of the child, especially during the impressionable years, should be a priority. The school child of today is confronted by a complexity of social and cultural forces, persuasive influences and ever-expanding options which affect his health behavior. Yesterday's solutions do not lend themselves to today's health problems. (American Public Health Association, p.1)

The position paper goes on to say:

> Education for and about health is not synonymous with information. Education is concerned with behavior - a composite of what an individual knows, senses, and values and of what one does and practices. Factual data are but temporary assumptions to be used and cast aside as new information emerges. Health facts unrenewed can become a liability rather than an asset. The health educated citizen is one who possesses resources and abilities that will last throughout a lifetime - such as critical thinking, problem-solving, valuing, self-discipline, and self-direction. . . (American Public Health Association, p. 1)

The Coordinator of Health Education, along with other concerned teachers, administrators and parents, felt that the development and implementation of a comprehensive health education program might be one answer to improving the

quantity and quality of all dimensions of the health of each student. Before such a program could be instituted, however, one question had to be answered. Are elementary teachers adequately prepared to teach health education?

According to Bender, many elementary teachers are inadequately prepared to teach such critical areas as mental health, sex education, drugs, alcohol, smoking or ecology. Not only are teachers not competent to disseminate factual information to their students, but they also lack competence in dealing with these areas from an attitudinal standpoint. The content areas a teacher knows best and those with which he is the most comfortable are the ones he will teach. It is probably not realistic to expect a person to teach any aspect of health education if he is not well versed in the content and methodology of each topical area. (Bender,p. 23)

STATEMENT OF THE PROBLEM

The problem of this study was to determine the effects of health instruction upon the ORT scores of students in grades one through five.

HYPOTHESES

Hypothesis 1

Health instruction will improve the ORT scores of students in grades one through three.

A. Health instruction in nutrition will improve the nutrition ORT scores of students in grades one

through three.

B. Health instruction in growth and development will improve the growth and development ORT scores of students in grades one through three.

C. Health instruction in family health will improve the family health ORT scores of students in grades one through three.

D. Health instruction in emotional and mental health will improve the emotional and mental health ORT scores of students in grades one through three.

E. Health instruction in substance use and abuse will improve the substance use and abuse ORT scores of students in grades one through three.

Hypothesis 2

Health instruction will improve the ORT scores of students in grades four and five.

A. Health instruction in nutrition will improve the nutrition ORT scores of students in grades four and five.

B. Health instruction in growth and development will improve the growth and development ORT scores of students in grades four and five.

C. Health instruction in family health will improve the family health ORT scores of students in grades four and five.

D. Health instruction in emotional and mental health will improve the emotional and mental health ORT

scores of students in grades four and five.

E. Health instruction in substance use and abuse will improve the substance use and abuse ORT scores of students in grades four and five.

Hypothesis 3

There will be significant differences in the ORT scores of students in grades one through five. In some grade levels teaching will be more successful than others.

Hypothesis 4

There will be significant difference in the ORT scores in nutrition, growth and development, family health, emotional and mental health, and substance use and abuse of students in grades one through five. In some health areas the teaching will be more successful than others.

Hypothesis 5

After taking a graduate level course in health education a majority of the teachers will give instruction in nutrition, growth and development, family health, emotional and mental health and substance use and abuse to students in grades one through five.

A. After participating in a Nutrition Education Workshop a majority of teachers will view the workshop as being valuable to them in their classroom teaching.

B. After viewing and discussing films from the "Inside/Out" series a majority of the teachers will view the preview as being valuable to them

in their classroom teaching.

C. After participation and discussion of value clarification techniques a majority of the teachers will view value clarification activities as being valuable to them in their classroom teaching.

DELIMITATIONS OF THE STUDY

Delimitation 1

The study was limited to elementary students in the Troy School District in grades one through five.

Delimitation 2

The study was limited to five of the ten content areas identified by the Michigan Department of Education, namely, nutrition, growth and development, family health, emotional and mental health and substance use and abuse.

DEFINITION OF TERMS

Minimal Performance Objective

A statement describing a desired learner performance which represents the basis for the design of one or several instructional interactions. Referred to as MPO.

Objective Reference Test

The Michigan Department of Education Assessment tests. Referred to as ORT.

Chapter II

SURVEY OF RELATED LITERATURE

Health education is value-laden simply because it touches so many aspects of the individual's daily life. For this reason, it is at once relevant and controversial. Successful programs must be built on clearly defining teaching strategies designed to help youngsters clarify their own sense of value. At the same time a program must also give attention to teaching pupils and their families about health and health practices. "The classroom teacher is in an ideal position to carry out such responsibility." (Wallace, p. 1186

Concern regarding the quality and effectiveness of health instruction prompted the 1964 School Health Education Study. This study planned for health instruction at four grade levels: K-3, 4-6, 7-9 and 10-12. Three major concepts gave direction to the development of content. These concepts were: growing and developing, decision making and interaction. The physical, mental and social dimensions of health were integrated into the three major concepts. Ten subconcepts were identified which further elaborated the three major concepts. These ten subconcepts became the major organizing elements of the curriculum. Behavioral objectives and suggested teaching strategies were developed for each of the ten subconcepts. Additional teaching materials have been

developed. (School Health Education Study) The results of this study indicated a need not only for giving consideration to content of health education, but also to the preparation and supervision of health teachers.

In the past eight to ten years health educators throughout the country have seen the need not only for designing curriculum guides but also providing in-service in health education to those individuals, particularly elementary teachers, already in the teaching profession.

The literature regarding the provision of in-service health education indicated that school districts in a few states are providing some in-service, but only on a short-term basis and generally involving only one specific content area.

In 1967, the Ellensburg, Washington, Public School System received a Title III grant to design and implement a program in health, physical education and recreation.

The Ellensburg program was divided into nine phases: Evaluation of Existing Programs, Development of a Tentative Scope and Sequence, Construction of Resource Units, Experimentation, Evaluation, Revision Based on Evaluation, Implementation, Continual Evaluation and Health Education In-Service opportunities.

At local, regional or state level meetings health resource speakers addressed the faculty.

The Ellensburg School District provided an extension course for its teachers on the Inquiry Technique which focused

specifically in the health area.

It was reported that while curriculum development should be utilized as a vehicle for in-service education and motivation, the administration, colleges and universities should provide additional opportunities for the improvement of subject knowledge and methodology in health education. (Nickerson, pp. 243-246)

Rochester, New York, developed a series of eight seminars for teachers in three suburban school districts. From twelve to fifteen junior and senior high school teachers participated in the seminars. Each seminar was led by a person from the School Health Program in the Department of Pediatrics, University of Rochester Medical Center.

The purpose of the seminars was to present materials on adolescent behavior and to assist the teachers in determining their roles in the educational system.

Even though the basic content of the seminar was different than the research being reported here, several similarities were seen. In both situations the seminars were held in a school where most or all of the teachers were employed. All of the teachers who participated in the program received in-service credit, and each class session was conducted in an informal manner with refreshments such as coffee, tea or soda being served. It was felt that the informal atmosphere was more conducive to good interaction and establishment of rapport. (Coleman, pp. 345-347)

In 1967 the New York State Legislature passed

a statute requiring all schools to prepare and implement a statewide program in health education, at all levels of instruction, and by September of 1970.

It was recognized early in the development of the program that extensive health education in-service would be necessary if the programs were to be successfully implemented. This was viewed as particularly important for elementary teachers inasmuch as many teachers at the secondary level had been hired because of their training in health education. Consequently, the in-service program was developed for teachers at the elementary level. Five two-hour mini-courses in health education were held in each elementary school in one Rockland County, New York, school system.

Emphasis was given to the importance of human relations in the teaching of health education. The teachers came to recognize that instruction in health education of a purely factual nature would be of questionable value to the students. Instead, an atmosphere of cordiality and humaneness was considered to be necessary as a proper environment for learning health education. "This soon had its carry-over effect in other subject areas as well." (Litchfield, pp. 235-239)

Dr. Larry Olson reported a cooperative study between the University of Illinois, the Danville, Illinois, School District 118 and the Division of University Extension. The program which was developed provided a 16 week in-service training program for teachers in the Danville School District. The program was based on the Berkely Smoking and Health

Education Project involving a team of teachers from specific grade levels, a curriculum person and a school principal. In the Berkley Project each team was given two weeks of extensive training in Awareness, Appreciation, Structure and Function, Disease and Disorders and Prevention of specific body systems. These teams then became trainers for other school districts. (Davis, pp. 33-36)

In the University of Illinois model a new dimension was added. Instead of a two-week concentrated in-service, teachers participated in a 16-week, graduate credit course. Teachers became familiar with the materials developed in California and with all materials used in the teaching model in Illinois. They then adapted these materials to meet the needs of their own students.

Several important factors were identified in part of the evaluation of the program.

1. Students use of library reference materials increased.
2. Students saw material as being personally relevant.
3. Community interest increased as voluntary health agencies were called upon for materials.
4. Teachers became convinced that health education was important.

Olson concluded that criteria for evaluating a health education in-service program should rest upon the performance of the teachers in replicating models. This was viewed as particularly important in terms of achieving desired student health behaviors. (Olson, pp. 224-228)

A critical review of the literature, utilizing the Datrix II, a computerized service that compiles a list of doctoral dissertations, and ERIC (Educational Resources Information Center) failed to reveal any comprehensive health education in-service programs for elementary teachers.

Chapter III

PROCEDURES

The problem of this study was to determine the effects of health instruction upon the ORT scores of students in grades one through five. In September, 1971, all elementary teachers in the Troy School District were instructed to begin teaching substance use and abuse. A Drug Education Guide was prepared and distributed to all teachers. In-service drug education was also provided. The coordinator felt, however, that the teachers were still inadequately prepared to teach the subject.

An Elementary Health Education Committee was established which was comprised of the coordinator, classroom teachers representing each of the five grades, and one physical educator, one principal and one parent. For the next two years this committee designed a local curriculum guide for health education, incorporating most of the Minimal Performance Objectives prepared by the Michigan Department of Education. The committee added objectives and content appropriate for their local school district.

Upon completion of the curriculum guide the coordinator was confronted with one additional task; preparing teachers to implement the curriculum with no funds to provide extensive in-service health education.

In January, 1974, the coordinator contacted Dr. Gertrude Couch, then acting chairman of the Department of Health Education, Wayne State University, Detroit, Michigan. Dr. Couch suggested that Wayne State offer a graduate level curriculum class in health education which would not only provide extensive health education in-service, but would also allow teachers to receive graduate credit. Mrs. Molly Wantz was contacted to assist in the development and implementation of this class.

For the next six months the writers developed a sequential, two-course program for the Troy School District. In developing the course several critical questions required consideration. 1) How could they develop a course which would provide comprehensive health education in-service? 2) How could they utilize materials already available to the teachers in Troy? 3) In what ways could they design the course so it was appealing to teachers? 4) How could they design a course which would be practical and at the same time provide cognitive information about health? 5) How could they utilize the expertise of community health agencies? 6) How could they motivate teachers to implement health instruction in an already overcrowded curriculum?

It was felt that two courses, instead of one, would be the most advantageous and would allow ample time for extensive coverage of all ten of the content areas described by the Michigan Department of Education.

In the first course, HED 5231, Curriculum in Health

Education Part I, growth and development, nutrition, family health, emotional and mental health, substance use and abuse and an introduction to the philosophy and use of values clarification techniques were covered. The second course, HED 5232, Curriculum in Health Education Part II, consumer health, community health, disease prevention and control, safety and personal health practices were covered. The purposes of the course were:

1. To introduce and demonstrate both traditional and innovative methods for elementary level health instruction.

2. To develop and/or revise instructional curricula for health education at the elementary level in the local school district.

3. To give impetus to the achievement of the Minimum Performance Objectives for Health Education as described by the Michigan Department of Education.

The objectives of the course were:

1. After demonstration and/or instruction of specific teaching methods, all teachers will actively participate in each lesson.

2. After participation in a specific health lesson, each teacher will evaluate the lesson.

3. At the conclusion of the course, each teacher will assist in the development and/or revision of specific elementary health objectives.

4. At the end of the school year, all teachers will evaluate the effectiveness of the course in terms of health instruction in the classroom.

A comprehensive review of all available audio visual and printed health education materials in the school district was done and the materials that were viewed as being valuable to the teachers were incorporated into both courses. This

gave teachers an opportunity of previewing materials which were available to them, something many of them reported they were unable to do on their own time. On several occasions teachers would bring to class a film or other health materials to share with their colleagues.

Realizing that many teachers were taking other classes, and having taught all day, a survey was sent out to all elementary teachers in the spring of 1974. The survey described the proposed course and asked the teachers which day and time of day would be most convenient for them to take the course. (See Appendix A, p. 42). The class was scheduled to meet once a week for eleven weeks, from 4:00 to 6:30 p.m. and the teachers who enrolled in the class received three graduate credits. The class was held in the library of an elementary school which was centrally located in the school district. Coffee, tea and soda were available at each class session.

One concern the writers had was developing a course which would demonstrate practical application of health education, and at the same time review and provide cognitive information. At the first class meeting, the curriculum guide, which included the recommended Minimum Performance Objectives for Health Education, was distributed to each teacher. Following an introduction to the class the remainder of the first evening was devoted to developing communication skills and creating a psychologically safe classroom atmosphere. The following class meetings were devoted to

introducing and demonstrating values calrification techniques, structured and simulation games, previewing and discussing films and previewing other visual materials. All of the activities which were demonstrated in class were designed for either the lower elementary level or the upper elementary level, and each activity was reproduced and distributed to each teacher. At the conclusion of the course each teacher had a packet of games and other activities for each of the five content areas. Following is an illustration of one game activity which was distributed to teachers.

Title: Growth and Development, Levels Four and Five

Background: The wise use of sexuality depends upon a thorough understanding of the biological, psychological and sociological aspects of human sexual behavior. Correct sexual vocabulary is often lacking in many students. It is difficult to discuss human sexuality and reproduction without a basic vocabulary of correct terms.

Objective: (Michigan Department of Education, p. 46, No. 2.2) Given a diagram of both male and female reproductive systems students will label the major parts and explain their functions in relation to menstruation and seminal emissions.

Materials: Thirty 4" x 5" cards (or one card for each class member), felt tip pen

1. On one half of the cards write a human sexuality term; on the other half of the cards write the corresponding definition.

2. Examples are as follows:

   CERVIX: Mouth of the uterus
   VULVA: Outside female sex organ
   SCROTUM: Sac containing testes found between thighs of the male

Description:

1. Give each student a card face down.
2. Tell the class they have two minutes to find the mate to their card.
3. When the students are in pairs ask the class to decide if the term and definition are correctly matched.
4. Distribute the cards again and play several times or until all pairs are correctly matched up.
5. Distribute the cards again. Have students randomly call out their term and ask the person who thinks he has the mate to the correct definition to pair off with that person.

Discussion Questions: Ask questions expanding the definition of the terms at the end of the game or during the time the students are determining if the match is correct. (Engs, Barnes and Wantz, p. 30)

Rather than discuss how a particular game or activity could be utilized in a classroom, the instructor involved the teachers in the game. For demonstration purposes the content of the activity was designed for an adult rather than a child. It was felt that if the teacher was required to call upon his own health knowledge, attitudes, beliefs and past experiences it would help him see the process the student would be experiencing. Each activity was followed by a debriefing session in which the teachers reviewed and discussed cognitive level health information and evaluated the activity in terms of how it could be used in their class. At many class sessions teachers reported the results of having applied a game or technique in their classroom. At each

class session teachers shared common classroom problems.

The expertise of several professional and voluntary health agencies were utilized in the class. Mrs. Barbara Doescher, Health Education Specialist from the Southeastern Michigan Dairy Council presented a comprehensive Nutrition Education Workshop, Mr. Phil Cozort, Dental Health Specialist from the American Dental Association presented a Dental Health Workshop, Mr. Robert Wangen, Basic First Aid instructor from the American Red Cross presented a First Aid Teacher Education Workshop and various instructional materials from the National Safety Council were presented.

Another concern of the writers was how to implement health instruction in an already crowded elementary curriculum and at the same time motivate teachers to do so. Throughout the entire course teachers were shown how a health unit could be planned and integrated into the existing curriculum. One example of this was demonstrated in an activity in which students were discussing the selection of proper clothing for each season. Students were given clothing catalogues and a budget of $40.00. They were asked to plan a seasonal wardrobe, color coordinating it and spending as much of their $40.00 as possible but not exceeding it. This was to include all tax and shipping charges. In this lesson the students were required to use art and color coordination skills, math skills and health skills.

At the conclusion of the course an evaluation was given to ascertain the value of the activities and to deter-

mine what content areas each teacher had taught or anticipated they would be teaching during the school year. (See Appendix B, p. 44)

In the spring of 1974, the coordinator had volunteered the Troy School District as a field testing site for the Michigan Department of Education. Permission to do the field testing in Troy was granted by the Assistant Superintendent of Elementary Instruction.

In September, 1974, the coordinator met with all elementary principals to enlist their cooperation in the field testing for both the experimental and the control groups.

The sample consisted of 638 students in grades one through five in the Troy School District. Eight of the 11 elementary schools participated in the study. Table 1 illustrates the distribution of schools, number of students, content areas and objectives which were covered in each grade level.

The students of those teachers who enrolled in HED 5231 became the experimental group. Between January 6th, and January 31, 1975, the experimental group teachers were to teach all of the MPOs in the health area assigned to them for ORT testing. (See Appendix C, p. 50) If the teachers were unable to cover all of the objectives the writers asked them to select those objectives in which they felt were the most appropriate for their class and to indicate in writing those objectives which were not covered. In addition, teachers were requested to teach as many MPOs as possible

TABLE 1

DISTRIBUTION OF STUDENTS AND OBJECTIVES
TAUGHT TO EACH EXPERIMENTAL GROUP

SCHOOL	GRADE	NUMBER OF CONTROL STUDENTS	NUMBER OF EXPERIMENTAL STUDENTS	OBJECTIVES TAUGHT TO EXPERIMENTAL GROUP FROM MPO HEALTH EDUCATION*
A	4	18	20	Nutrition on pp. 12-13
B	1	25	23	Nutrition on pp. 12-13
C	2	21	14	Growth and Development pp. 14-16
D	4	29	27	Growth and Development pp. 14-16
D	4	27	27	Family Health p. 17
D	1	23	21	Family Health p. 17
D	4	25	28	Nutrition pp. 41-43
D	5	21	20	Family Health p. 47
E	1	27	23	Growth and Development pp. 14-16
E	3	20	22	Emotional and Mental Health pp. 18-19
E	3	21	21	Substance Use and Abuse pp. 20-22
F	5	21	25	Nutrition pp. 41-43
G	5	21	17	Substance Use and Abuse pp. 50-52
H	5	25	26	Growth and Development pp. 44-46
	TOTALS	324	314	

*The Michigan Department of Education, Minimal Performance Objectives for Health Education in Michigan, Lansing, Michigan, 1974

in the remaining content areas, knowing the students would not be tested in those areas.

A variety of teaching methods were utilized by each teacher. The illustration which follows indicates the objectives for one content area, nutrition, and the teaching strategies employed to achieve those objectives. (Michigan Department of Education, p. 12)

Grade Level: 1-3

Content Area: Nutrition

Objective: By the end of third grade, students will identify a variety of foods taken from the four basic food groups, as measured by minimum criteria on an objective-referenced test (ORT)

Teaching Strategies:

1. Show pictures containing a variety of foods and have students identify the food in each picture.

2. Show pictures containing a variety of common foods and have students identify the foods they most often eat.

3. Give the students a list of foods and food characteristics and have them match the food with the characteristic.

Food	Characteristics
Carrots	Red, round, green leaves
Corn	Long, pointed, orange
Beets, etc.	Yellow, covered with green husks, grows on tall stalks, etc.

Objective 2: By the end of the third grade, students will classify foods according to the basic four food groups, as measured by minimum criteria on an ORT.

Teaching Strategies:

1. Give the students a list of common foods

and have them place the food in one of the basic four food groups.

Number the following foods according to the food group or groups to which they belong.

1. Meat foods
2. Milk foods
3. Bread and cereals
4. Fruits and vegetables
5. None of these

___ Bananas
___ Cake
___ Plain hot dog
___ Soda Pop
___ Eggs
___ Apples
___ Cheeseburger (with bun, lettuce, tomato, mustard, and onions)
___ Oatmeal
___ Candy
___ Butter
___ Popcorn
___ Gum
___ Milk shake

2. Have students prepare a list of all of the foods they eat at home and school for one day. Have students classify these foods into the basic four food groups.

Objective 3: By the end of the third grade, students will demonstrate knowledge of the general relationship between food consumption and health, as measured by minimum criteria on an objectives-referenced test (ORT).

Teaching Strategies:

1. Discuss major reasons why people eat, (e.g., eating makes us feel good, food gives us energy, helps us to grow, etc.).

2. Discuss at least two basic reasons for eating a variety of foods, (e.g., some foods provide more energy than others, the body needs different kinds of food to prevent sickness, certain foods are important for proper development of the body, etc.).

3. Discuss situations in which food consumption can be unhealthy, (e.g., eating the wrong

kinds of food, allergy, eating too much food, eating too much of certain kinds of foods, eating dirty food, eating spoiled food, not eating enough food, etc.).

It was expected that teachers would also utilize the methods and materials demonstrated during the Nutrition Education Workshop which were presented in the graduate class.

After the instruction, the state's assessment test was forwarded to each teacher. According to Dr. Edward D. Roeber, Coordinator, Test Development, Michigan Educational Assessment Program, these tests were developed by health professionals throughout the state of Michigan in various health fields and teachers in elementary schools and colleges of education. Troy School District along with nine districts throughout Michigan participated in the field testing of these tests. From February 3rd through February 21, 1975, teachers administered the test to their students in both the control and experimental groups. The tests were then forwarded to the Department of Education for scoring and analysis. A copy of the results was sent to the coordinator.

The control group was made up of classes at the same grade and in the same elementary school as the experimental group. A letter was sent to the teachers requesting their assistance. (See Appendix C, p. 49) The teachers in the control group were asked to administer the same assessment test as the experimental group teachers, each having a different content area. No instruction was to be given prior to the students taking the examination. The tests were

returned to the coordinator and hand scored by the writers.

A final course evaluation was administered in July, 1975, to all teachers who participated in HED 5231. The evaluation was designed to solicit the teachers' feelings as to the value of the course in terms of their classroom teaching, and to determine which content areas they had taught during the school year. (See Appendix B, p. 46)

All test scores were placed on IBM computer punch cards by a qualified key punch operator at Troy High School. These cards were subsequently submitted to Dr. William R. Veitch, Assistant Director of Systematic Studies of the Oakland County Michigan Intermediate School District for programing and statistical analysis. A computer print-out form was returned to the writers.

For hypotheses 1 and 2 the test scores were analyzed by a one-tailed t test with a 1.64 level of acceptance set at the .05 level of confidence.

Hypotheses 3 and 4 utilized an F ratio to determine the variance between all five grade levels and all five content areas. The level of acceptance was set at 2.37 using a .05 level of confidence. (Hoel, pp. 148-151) The means of the experimental group were further analyzed by the Scheffe' test for all possible comparisons. The level of acceptance was set at 2.37 using a .05 level of confidence. (Roscoe, pp. 238-242)

Hypotheses 5, 5A, 5B and 5C were related to the final evaluation. All responses were hand-tallied by the investi-

gators and each item was computed on a percentage basis. The level of acceptability for hypothesis 5 was if a majority of teachers actually taught all five content areas to their class. The level of acceptability for hypotheses 5A, 5B and 5C was if a majority of teachers felt the Nutrition Education Workshop, the preview of "Inside/Out" films and the demonstration of value clarification techniques was of value to them in their classroom teaching.

The writers recognized that there were certain variables over which they had no control. Some students may have had knowledge of the content area prior to the instruction. This could have been due to family background and/or the viewing of educational television programs. In some instances teachers in the experimental group did not have the class time to thoroughly cover each assigned objective. The control group teachers may also have previously taught the content area and their students, therefore, knew the material prior to taking the ORT.

Chapter IV

ANALYSIS OF DATA

The problem of this study was to determine the effects of health instruction upon the ORT scores of students in grades one through five.

Table 2 shows the analysis of the control and experimental ORT scores, listing the t scores and degrees of freedom. In order to accept hypothesis 1 and 2 the t value had to be greater than 1.64 which was statistically significant at the .05 level of confidence for a one-tailed test.

Health instruction did improve the ORT scores of students in grades one through three, therefore hypothesis 1 was accepted. Instruction in nutrition did improve the nutrition ORT scores for students in grades one through three, therefore hypothesis 1A was accepted. Instruction in growth and development did improve the growth and development ORT scores for students in grades two and three, but not in grade one. Therefore hypothesis 1B was accepted for grades two and three, but rejected for grade one. Instruction in family health did improve the family health ORT scores for students in grade one but not for students in grade three. Therefore, hypothesis 1C was accepted for grade one and rejected for grade three. Instruction in emotional and mental health did not improve the emotional and mental health ORT scores for stu-

TABLE 2

ANALYSIS OF THE CONTROL AND EXPERIMENTAL GROUPS
LISTING THE DEGREES OF FREEDOM AND t SCORES

HEALTH AREA	SCHOOL	GRADE	DEGREES OF FREEDOM	t VALUE
Nutrition	B	1	46	4.70
Nutrition*	A	4	36	4.15
Nutrition	D	4	51	1.67
Nutrition	F	5	44	6.98
Growth and Development	E	1	48	-3.02
Growth and Development	C	2	33	4.02
Growth and Development*	D	4	54	4.13
Growth and Development	H	5	49	5.93
Family Health	D	1	42	5.27
Family Health*	D	4	52	0.76
Family Health	D	5	39	4.63
Emotional/Mental Health	E	3	40	0.72
Substance Use and Abuse	E	3	40	1.32
Substance Use and Abuse	G	5	36	1.74

*Fourth grade students who took the 1-3 grade test

dents in grades one through three, therefore, hypothesis 1D was rejected. Instruction in substance use and abuse did not improve the substance use and abuse ORT scores for students in grades one through three, therefore, hypothesis 1D was rejected.

Health instruction did improve the ORT scores of students in grades four and five, therefore, hypothesis 2 was accepted. Instruction in nutrition, growth and development, family health and substance use and abuse did improve the ORT scores of students in grades four and five, therefore hypotheses 2A, B, C and E were accepted. The investigators were unable to analyze the data for emotional and mental health ORT scores due to the failure of the Department of Education to return that information.

Hypotheses 3 and 4 utilized an F ratio with the level of acceptability being 2.37 at the .05 level of confidence. The analysis of the F ratio for hypothesis 3 was 17.977, thus showing a very significant difference in the ORT scores of students in grades one through five. The analysis of the F ratio for hypothesis 4 was 89.554, thus showing a very significant difference in the ORT scores in nutrition, growth and development, family health, emotional and mental health and substance use and abuse of students in grades one through five.

The means of the experimental group were further analyzed by the Scheffe' test for all possible comparisons with the level of acceptance set at 2.37 using a .05 level

of confidence. (Roscoe, pp. 238-242) Table 3 shows the comparison of the experimental group mean scores of Michigan Health Education Assessment tests to determine significant differences between grade levels. Teaching at grade two was most effective; teaching at grade five was least effective. There was no significant difference between grades one, three, and four. Hypothesis 3 was accepted.

Table 4 shows the comparison of the experimental group mean scores to determine significant differences between the health areas of nutrition, growth and development, family health, emotional and mental health, and substance use and abuse. This analysis shows that teaching in the health area of growth and development was most successful; teaching in nutrition least successful; teaching in substance use and abuse was significantly more effective than nutrition and family health, but not significantly more effective than emotional and mental health. Hypothesis 4 was accepted.

The basis for acceptance or rejection of hypothesis 5 was whether or not a majority of the teachers actually taught all five content areas to their students. Table 3 shows the percentage of teachers in the graduate class who actually taught all five content areas.

In addition, the basis for accepting or rejecting hypotheses 5A, B and C was whether or not a majority of teachers felt that the Nutrition Education Workshop, the preview and demonstration of films from the "Inside/Out" series and the discussion and demonstration of value clarification tech-

TABLE 3

COMPARISONS OF EXPERIMENTAL GROUP MEAN SCORES OF MICHIGAN HEALTH EDUCATION ASSESSMENT TESTS TO DETERMINE SIGNIFICANT DIFFERENCES BETWEEN GRADE LEVELS

GRADES COMPARED	MEANS	F RATIO	SIGNIFICANT AT .05 LEVEL OF CONFIDENCE
1 with 2	36.63/50.86	5.1801	yes
1 with 3	36.63/39.21	0.3858	no
1 with 4	36.63/34.54	0.3893	no
1 with 5	36.63/28.52	5.5188	yes
2 with 3	50.86/39.21	3.1652	yes
2 with 4	50.86/34.54	7.2410	yes
2 with 5	50.86/28.52	13.3095	yes
3 with 4	39.21/34/54	1.4573	no
3 with 5	39.21/28.52	7.2872	yes
4 with 5	34.54/28.52	3.7776	yes

TABLE 4

COMPARISON OF EXPERIMENTAL GROUP MEAN SCORES
TO DETERMINE SIGNIFICANT DIFFERENCES
BETWEEN HEALTH AREAS

HEALTH AREAS COMPARED	MEANS	F RATIO	SIGNIFICANT AT .05 LEVEL OF CONFIDENCE
Nutrition/Growth and Development	26.63/46.81	73.2409	yes
Nutrition/Family Health	26.63/27.74	0.1898	no
Nutrition/Emotional and Mental Health	26.63/36.41	6.6298	yes
Nutrition/Substance Abuse	26.63/37.61	12.7006	yes
Growth and Development/Family Health	46.81/27.74	54.5391	yes
Growth and Emotional and Development/Mental Health	46.81/36.41	7.4016	yes
Growth and Substance Use Development/and Abuse	46.81/37.61	8.7616	yes
Family Health/Emotional and Mental Health	27.74/36.41	4.8390	yes
Family Health/Substance Use and Abuse	27.74/37.61	9.1890	yes
Emotional and/Substance Use Mental Health/and Abuse	36.41/37.61	0.0771	no

niques was of value to them in their teaching.

One hundred percent of the teachers reported that the Nutrition Education Workshop was very valuable or valuable to them in their classroom teaching, therefore hypothesis 5A was accepted. For 58 percent of the teachers the preview and demonstration of films from the "Inside/Out" series was very valuable or valuable and 66 percent reported that the discussion and demonstration of value clarification techniques was very valuable or valuable to them. On the basis of this data hypotheses 5B and 5C were accepted.

TABLE 5

PERCENTAGE OF TEACHERS WHO TAUGHT EACH OF THE FIVE CONTENT AREAS

CONTENT AREA	PERCENTAGE OF TEACHERS WHO ANTICIPATED TEACHING AREA	PERCENTAGE OF TEACHERS WHO ACTUALLY TAUGHT AREA
Growth and Development	91	83
Nutrition	91	83
Emotional/Mental Health	91	83
Family Health	75	50
Substance Use and Abuse	58	66

Chapter V

FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

FINDINGS

Based on this study, significant findings include:

1) In five out of nine classes at grades one through three, health instruction improved the ORT scores.

2) In all five classes at grades four and five, health instruction improved the ORT scores.

3) Health instruction improves the overall ORT scores in all five grades.

4) Health instruction at grade two was most effective as shown in Table 3.

5) Health instruction at grade five was least effective as shown in Table 3.

6) Health instruction in Growth and Development was most effective as shown in Table 4.

7) Health instruction in Nutrition was least effective as shown in Table 4.

8) Health instruction in Substance Use and Abuse was significantly more effective than nutrition and family health, but not significantly more effective than emotional and mental health.

CONCLUSIONS

Based on this study the following conclusions are made:

1) Health instruction generally improved ORT scores.

2) Differences on the ORT did occur at grade levels.

3) Differences on the ORT did occur in content areas.

4) A graduate level curriculum course in health education was valuable to elementary teachers.

RECOMMENDATIONS

Based on this study the following recommendations are made:

1) Elementary teachers in the Troy School District should continue teaching health education.

2) HED 5231, Curriculum in Health Education, Part I, and HED 5232, Curriculum in Health Education, Part II, continue to be offered to the teachers in the Troy School District.

3) Teachers should be given continual opportunities, through HED 5231 HED 5232, to preview and discuss films from the "Inside/Out" series.

4) Teachers should be given continual opportunities, through HED 5231 and HED 5232, to develop knowledge and skill at using value clarification techniques in their classes.

5) A similar study should be conducted to evaluate the five content areas not covered in this study. (Consumer health, community health, disease prevention and control, safety and personal health practices)

6) Future studies should be more controlled, spelling out the length of time for teaching, the teaching procedures and materials to be used.

BIBLIOGRAPHY

American Public Health Association, "Education for Health In The Community Setting", School Health Section Position Paper presented October 23, 1974, New Orleans, Louisiana

Bender, Stephen J., "Health Education In The Elementary School", School Health Review, American Association of Health, Physical Education and Recreation, January-February, 1972

Chamber of Commerce, City of Tomorrow Today, Troy, Michigan, 1975

Coleman, Raymond F.,"Seminars For Teachers of Adolescents", The Journal of School Health, Vol, XLII, No. 6, June, 1972

Davis, Roy L. "New Models for Health Curriculum and Teacher Training", School Health Review, Vol. 5, No. 4, July-August, 1974

Engs, Barnes and Wantz, Health Games Students Play, Iowa: Kendall-Hunt Publishing Company, 1975

Hoel, Paul G., Elementary Statistics, 2nd Edition, New York: John Wiley and Sons, Inc., 1967

League of Women Voters of Troy, Know Your Schools- Troy School District, Troy Michigan: May, 1975

Litchfield, Ticknor B., "A School System With A Comprehensive Program in Health Education", The Journal of School Health, Vol. XLII, No. 4, April, 1973

Michigan Department of Education, Minimal Performance Objectives For Health Education In Michigan, Lansing, Michigan, 1974

Nickerson, Carl J., "Health Curriculum: From Theory to Reality", The Journal of School Health, Vol. XXXIV, No. 4, April, 1969

Olsen, Larry K., "A Suggested Model For Assessing Teacher Performance". The Journal of School Health, Vol. XLIII, No. 4, April, 1973

Roscoe, John T., Fundamental Research Statistics for the Behaviorial Sciences, Holt, Rinehart and Winston, Inc., New York, 1969

School Health Education Study, Health Education: A Conceptual Approach to Curriculum Design, St. Paul, Minnesota: Minnesota, Mining and Manufacturing, 1968

Sorochan, Walter D. and Stephen J. Bender, Teaching Elementary Health Science, Addison-Wesley Publishing Company, Reading, Massachusetts, 1975

Wallace, Helen M., "School Health Services", Encyclopedia of Educational Research, 4th Edition, Edited by Robert L. Ebel, New York: MacMillan and Company, 1969

APPENDIX A

THE SURVEY SENT TO TEACHERS IN THE
TROY SCHOOL DISTRICT DESCRIBING HED 5231

TROY SCHOOL DISTRICT

April 22, 1974

MEMO TO: ALL ELEMENTARY PRINCIPALS
ALL ELEMENTARY TEACHERS

FROM: MARTHA DUSHAW, HEALTH EDUCATION

Plans are being formulated to offer a graduate credit course in HEALTH EDUCATION for elementary personnel. It will be based on the Michigan Performance Objectives and will be a very practical course with many activities you can use in your classroom.

The course will be offered by Wayne State University, but can be transferable to other colleges. The number of credits is still open depending on the length of the course. Please answer the following questions on this survey so that I may know your interests:

1. Would you be interested in attending a graduate credit course in HEALTH EDUCATION for elementary teachers in the fall quarter of 1974?

   ____YES ____NO

2. Which evening do you prefer?

   ____MON ____TUES ____WED ____THURS

3. Which time is preferable?

   ____4:30-7:00 ____7:00-9:30

4. If you are not interested in this class for September, are you interested in attending one during the winter quarter?

   ____YES ____NO

You are not obligated to sign up for the course. I only want to know how many elementary teachers in our school district are interested. If the class is not filled, we will open it to teachers in nearby school districts. These credits are acceptable as professional growth credits.

Please return this survey by April 29, 1974 to:

Martha DuShaw
Health Education
c/o Central Processing

Signature_____

Building_____

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APPENDIX B

COURSE EVALUATIONS FOR:

DECEMBER, 1974

JULY, 1975

Circle the objective(s) you anticipate teaching between now and the end of school. Not all numbered objectives apply to your particular grade. Check your curriculum guide.

Name_____

School_____

Grade_____

GROWTH AND DEVELOPMENT

Individual Growth	1	1.1	1.2	2	2.1	2.2	2.3	2.4
	3	3.1	3.2	3.3				
Origin of Living Things	1	1.1	2	2.1				
Major Body Parts	1	2	3					

NUTRITION

Foods and Food Groupings	1	1.1	1.2	1.3	2	2.1	2.2	
Food and Health	1	1.1	1.2	1.3	2			
Nutrients From Food	1							
Environment	1	2						
Food Processing	1							
Choices of Foods	1							
Food Choices	1	1.1	1.2	1.3	2	2.1	2.2	3
Eating Patterns	1	1.1	1.2					
Nutrients	1	2						

MENTAL AND EMOTIONAL HEALTH

Feelings and Moods	1	1.1	1.2	2	2.1	2.2	2.3	3
	4	5						

FAMILY HEALTH

Family Roles and Responsibilities	1	1.1	2	2.1	3
	3.1	4	5		
Types of Families	1				

SUBSTANCE USE AND ABUSE

Poison Prevention	1	1.1	1.2	1.3			
Emergency Readiness	1	1.1	2	3	4		
Coping with Problems	1	1.1	1.2				
Substance Use	1	1.1	1.2	1.3	2	2.1	2.2
History of Drugs	1						
Household Chemicals and Drugs	1						
Substance Use and Abuse	1	1.1	2	3	4		
Uses of Drugs	1	2	3				
Smoking	1	2					
Alcohol	1	2	3				

WAYNE STATE UNIVERSITY
Final Course Evaluation
HED 5231

Directions: Please answer all of the following questions.

1. Check one response for each item

	I taught this content area in my class this year	I did not teach this content area
Growth and Development	_____	_____
Emotional and Mental Health	_____	_____
Family Health	_____	_____
Substance Use and Abuse	_____	_____
Nutrition	_____	_____

2. To What extent were the special Nutrition Education Workshops of value to you in your teaching?

Very Valuable____

Valuable____

O.K.____

Of Some Value____

Of Little Value____

3. To what extent was the "Inside/Out" films (Emotional and Mental Health) of value to you in your teaching?

Very Valuable____

Valuable____

O.K.____

Of Some Value____

Of Little Value____

4. To what extent was the background information and demonstration of value clarification techniques of value to you in your teaching?

   Very Valuable____

   Valuable____

   O.K.____

   Of Some Value____

   Of Little Value____

5. Were there any activities you felt were inappropriate for the content areas we covered in class?

   No____

   Yes____Brief explanation:

6. In your opinion what activities of HED 5231 were the most outstanding and beneficial to you? (Name content areas)

APPENDIX C

CORRESPONDENCE

TROY
SCHOOL DISTRICT

4400 LIVERNOIS • TROY, MICHIGAN • 48084 • (313) 689 - 0600

Dr. Don R. Shader
Superintendent of Schools
Lawrence R. Hamilton
Assistant Superintendent, Elementary Education
Boyd R. Larson
Assistant Superintendent, Secondary Education
G. Thomas Bu[illegible]
Executive Direc[illegible], Personnel Services
John P. Diefenbaker
Executive Director Auxiliary Services
Marajeane Zodtner
Executive Director Business Services

February 7, 1975

Central Processing
Troy School District
Troy, Michigan

Dear Teacher:

This letter is in reference to the field testing of the Minimal Performance Objectives in Health Education.

The Michigan Department of Education has requested various school districts to help validate the test items for Health Education. Troy School District has been one of the districts selected to do this.

I am soliciting your assistance in this task. The only thing you will be asked to do is administer a specific test to your class. It will involve only a minimum amount of time on your part.

Upon your acceptance of this task, I will forward to you, in the interschool mail, the test items. Upon completing the test you need only to return them to me. I will complete the remainder of the task.

Would you please call my secretary, Mrs. Barbara Uebbing, at 879-1889 no later than Friday, February 14, 1975, and let her know whether or not you will assist in the field testing.

If you agree to test, you will receive the test items and instructions by Friday, May 7th.

I will look forward to hearing from you in the near future. If I can provide any further information please don't hesitate to call me.

Sincerely,

Mrs. Martha DuShaw
Coordinator
Health Education

PEPPLETON SCHOOL 1877

WAYNE STATE UNIVERSITY
DETROIT, MICHIGAN 48202

DIVISION OF HEALTH
AND PHYSICAL EDUCATION

January 8, 1975

Dear Teacher:

This letter is in reference to the field testing of the Minimal Performance Objectives in Health Education.

I indicated to you at the beginning of last quarter that many of you would be asked to assist the Michigan Department of Education in this task. I know I indicated to you that the teaching and testing of specific objectives would not need to be completed until the end of the school year, however, the Department of Education has changed our schedule. Our new time table is as follows:

January 6-31: Teach all or as many of your assigned objectives as possible. It would be most helpful if you could teach all of the objectives for your assigned topic, however, if this is not possible, teach only those objectives you have time for or feel are appropriate for your particular group of children. If you find you cannot teach all of the objectives we would appreciate a written note indicating the reason(s). This is for the information of the Department of Education.

February 3-21: On Monday, February 3rd, you will receive in the mail a packet of test materials. You may administer the test at your convenience anytime from February 3-21. The students will be required to formulate their answers in writing (when possible) in the test booklet and you will have to transpose their answers to an IBM answer sheet.

If you have already taught the assigned objectives and are ready to administer the test contact Martha DuShaw at 879-1889 and the test materials will be forwarded to you immediately.

The objectives you will be teaching are in the area of_____ for the_____grade.

If I can be of assistance to you please don't hesitate to call me at 781-9902.

Enclosed is a copy of a document prepared by the Michigan Department of Education which fully explains this project.

I am most appreciative of your cooperation and will look forward to working with you in the future.

Sincerely,

Molly S. Wantz, EdS
Assistant Professor
Health Education